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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,596	11/27/2001	Alexander V. Pyntikov	57357-017	8700

7590 07/29/2004
McDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

PHAM, LEDA T

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,596

Applicant(s)

PYNTIKOV ET AL.

Examiner

Leda T. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 and 15-18 is/are allowed.
- 6) ☒ Claim(s) 1,2,10 and 12 is/are rejected.
- 7) ☐ Claim(s) 3-9 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to Amendment filed on 4/26/04.

Claims 1 – 13, 15 - 18 are presented for examination.

Claim 14 is canceled, and claims 19 – 23 are withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (U.S. Patent No. 5,661,379) in view of Ford et al. (U.S. Patent No. 5,258,697).

Referring to claim 1, Johnson teaches a rotary electric motor (figure 1 –2) comprising:

a rotor (17) disposed in an annular ring configuration;

a stator comprising a plurality of separate, isolated electromagnets (poles 1 - 4) in an annular ring configuration, windings of the electromagnets selectively energized to form magnetic poles of alternating polarity (figure 5) along a radial air gap (figure 2) that separates the stator from the rotor; and

a plurality of separate power modules (WDC 9 – 16), each of said modules corresponding to a respective stator electromagnet for providing energization current thereto.

Referring to claim 12, Johnson teaches a rotary electric motor (figure 1 –2) comprising:

a rotor (17) disposed in an annular ring configuration;

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a stator coaxial with the rotor and separated therefrom by a radial air gap;

wherein the stator comprising a plurality of independent stator units, each of the units comprising an isolated core (poles 1 – 4) having a winding (1 – 8) formed thereon and circuitry (9 – 16) for controlling energization for the winding.

However, in those claims, Johnson fails to teach the rotor having a plurality of permanent magnets, and the stator pole is ferromagnetic.

Ford teaches a permanent magnet electric motor (figure 1) having a rotor (12) with a plurality of permanent magnets (44), and a stator (14) with separate, ferromagnetically isolated electromagnets (46) for operating in high motor efficiency where the electromagnets are energized primarily to negate attraction to the permanent magnets.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Johnson's motor with a permanent magnet rotor and a stator having ferromagnetically poles. Doing so would provide a high motor efficiency with strong energizing for negating attraction between stator and rotor.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Johnson and Ford as applied to claim 1 above, and further in view of Hsu.

Referring to claim 2, the combination of Johnson and Ford teaches the claimed invention, except for the added limitation of the stator is encompassed within the rotor.

Hsu teaches a rotary electric motor for the purpose of generating the exciting current of stator coil, and increasing the rotation speed of a magneto motor where the stator can either inside or outside the rotor (figure 3B, 4B). Therefore, the position of a stator inside or outside to a rotor does not matter to a motor with the above purposes.

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Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to produce a motor with the stator encompassing with the rotor as taught by Hsu. Doing so would generate exciting current of stator coil to the rotor for increasing the rotation speed.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Johnson and Ford as applied to claim 1 above, and further in view of Kilmer (U.S. Patent No. 5,458,159).

Referring to claim 10, the combination of Johnson and Ford substantially teaches the claimed invention, except for the added limitation of the motor enclosed within a shielded housing.

Kilmer teaches a motor (20) enclosing within a shielded to prevent emission of EMI and RFI from the motor (lines 18 – 20, column 5).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a shielded housing in a rotary electric motor to enclose the motor as taught by Kilmer. Doing so would prevent emission of EMF and RFI for the motor.

Allowable Subject Matter

6. Claims 3 – 9, and 11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 13, 15 – 18 are allowed.

8. The following is an examiner's statement of reasons for allowance: the record of prior art does not show a rotary electric motor having a plurality of separate power modules containing

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within a stator radially inward of stator electromagnets, and the stator having a plurality of independent stator units, each of the units having a ferromagnetically isolated core with a winding formed thereon, circuitry, a rotor position sensor, and a separate power supply.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

9. Applicant's arguments with respect to claims 1- 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (571) 272-2032. The examiner can normally be reached on M-F (8:30-6:00) first Friday Off.

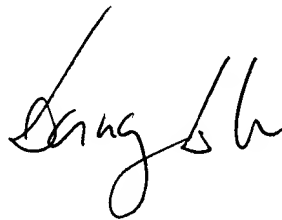
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leda T. Pham
Examiner
Art Unit 2834

LTP
July 26, 2004

A handwritten signature in black ink, appearing to read 'Dang Le', is written over the printed name of the examiner.

**DANG LE
PRIMARY EXAMINER**